

¹³⁰Te(p,p),(p,p') IAR 1984Fo10,1984He01,1970Bu01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov		NDS 107, 2715 (2006)	17-Jul-2006

1984Fo10: E=9.5,14, and 10.1-10.72 MeV, measured $\sigma(\theta)$ for elastic and inelastic scattering and analyzing power and polarization data at 10° intervals between 40°–170°; coupled channels plus resonance formalism analysis.

1984He01: E=7.5-14 MeV; measured $\sigma(\theta)$ for elastic and inelastic scattering; R-matrix analysis.

1971Hi02,1970HiZV: E=8-11.8 MeV, measured $\sigma(\theta)$, single-particle theory analysis. Uncertainty in resonance energies not given by authors; assumed to be 25 keV by the evaluators.

1970Bu01: E=7.48-12.65 MeV, FWHM=23-60 keV; measured $\sigma(\theta)$, $\sigma(\theta,E\gamma,E(p),E(p'))$, resonance parameter analysis.

1968Fo08: E=7.5-12.7 MeV; measured $\sigma(\theta)$, resonance parameter analysis.

¹³¹I Levels

E(level) [†]	J ^π	Γ ^{&}	L [‡]	Comments
(0)				
7974 14	3/2 ⁺ #	50 keV 3	2	E(level): IAR of the g.s. level in ¹³¹ Te.
8278 14	1/2 ⁺ #	55 keV 2	0	E(level): IAR of the 296 level in ¹³¹ Te.
10205 14	7/2 ⁻ #@	79 keV 2	3	E(level): IAR of 2278 level in ¹³¹ Te.
10451 14	3/2 ⁻ #@	61 keV 12	1	E(level): IAR of 2511 level in ¹³¹ Te.
10507 14	3/2 ⁻ #@	63 keV 6	1	E(level): IAR of 2583 level in ¹³¹ Te.
10906 14	1/2 ⁻ #	120 keV 12	1	E(level): IAR of 3002 level in ¹³¹ Te.
11014 18		40 keV	3	L: from 1971Hi02; L=(3) from 1968Fo08. Γ: from 1971Hi02.
11078 18		55 keV	3	E(level): weighted average values of 1968Fo08 and 1971Hi02; not seen by 1970Bu01. Γ: from 1971Hi02.
11120 22		100 keV 30	(3)	
11170 25		90 keV	1	E(level): seen by 1971Hi02 only. Γ: from 1971Hi02.
11292 16		80 keV 26	3	
11380 22				E(level): seen by 1970Bu01 only.
11487 14		71 keV 16	1	
11592 14		75 keV	3	Γ: from 1971Hi02.
11660 25				E(level): 11660 27, L=(1) in 1968Fo08; 11660 25, L=3 and another one at 11680 25, L=1 in 1971Hi02.
11840 22				E(level): seen by 1968Fo08 only.
11932 17			(1)	
12140 27			(1)	
12200 22			1	
12230 27				
12474 17			1	
12570 27				
12750 27			(3)	

[†] Weighted average of the c.m. energies of the resonances observed by 1968Fo08, 1970Bu01 and 1971Hi02.

[‡] From resonance analysis of data by 1968Fo08, 1970Bu01 or 1971Hi02.

From R-matrix analysis of the angular distribution for elastic and inelastic scattered protons (1968Fo08,1970Bu01,1984He01).

@ From R-matrix analysis of the angular distribution for elastic and inelastic scattered protons, and from polarization and analyzing power data combined with coupled channel plus resonance formalism (1984Fo10).

& From 1970Bu01, unless indicated otherwise.